



**11th PAN AMERICAN
AVIATION SAFETY SUMMIT**

SÃO PAULO, BRAZIL **2022**

 **ALTA**

 **LATAM**
AIRLINES



Pilot`s Mental Health

Marcelo Marcusso – LATAM Airlines

The aircraft needs maintenance to remain airworthy. What about us, humans??



History of incidents and Accidents Related to Pilot Mental Health

Mental Health issue isn't something new in aviation

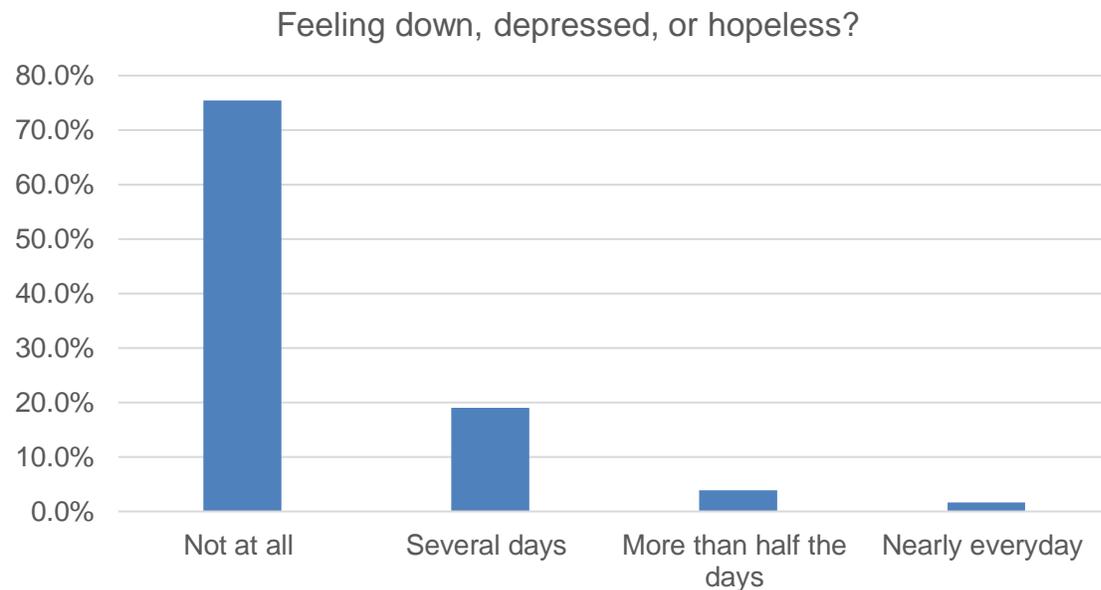
Flight/Date/Reference	Fatalities	Description	Mental Health/Negative Life Events
JL350 (1982)	24	Deliberate crash	Psychosis
FX705 (1994)	-	Hijack and attempted crash	Facing termination of employment
AT630 (1994)	44	Most likely deliberate crash	No mental illness, lovers quarrel in popular media
BA (1996)	-	Panic Attack	Panic/Axiety disorder
MI185 (1997)	104	Deliberate crash most likely	Financial losses, disciplinary actions from airline for violating company regulations
BP (1999)	1	Deliberate crash	Declared unfit for duty due to medical reasons
MS990	217	Deliberate crash	Report that the first officer had been demoted a few hours before the flight
70 (2001)	2	Collision with mountain	Previous imprisonment for cocaine distribution, first officer's medical considered for denial, use of cocaine by captain, and antidepressants by first officer
AC848 (2008)	-	Acute mental distress of copilot	Acute psychosis
B6191 (2012)	-	Captain became severely confused	Acute psychosis
TM470	33	Deliberate crash	Loss of son and marital problems
AC584	-	Copilot suffered acute mental distress	Most likely acute psychosis
AZ (2015)	-	Pilot threatened to crash his aircraft	Marital Problems
DE7438 (2015)	-	Panic attack	Most likely anxiety disorder
4U9525 (2015)	150	Deliberate crash	Depressive disorder, problems with vision, relationship problems
AU (2017)	-	Acute mental distress	Most likely coping problems after divorce, formal diagnosis of a mental disorder is not known

Source: Mulder S., Rooy D. 2018 Pilot Mental Health, Negative Life Events, and Improving Safety with Peer Support and a Just Culture

How Was Pilots Mental Health Before The Pandemic

Harvard Study on Pilots Mental Health - 2016

“We found that many pilots currently flying are managing depressive symptoms, and it may be that they are not seeking treatment due to the fear of negative career impacts,” Joseph Allen (2016)



Conclusions of the Study

- 12,6% of Pilots responding to the PHQ-9 met criteria for likely depression.
- 4.1% reported having thoughts of better being off dead or self-harm within the past two weeks.

Source: Wu, A.C., Donnelly-McLay, D., Weisskopf, M.G. et al. (2016) Airplane pilot mental health and suicidal thoughts: a cross-sectional descriptive study via anonymous web-based survey.

COVID 19 Pandemic Made Things Worst

Prevalence of depression before and after the COVID-19 outbreak

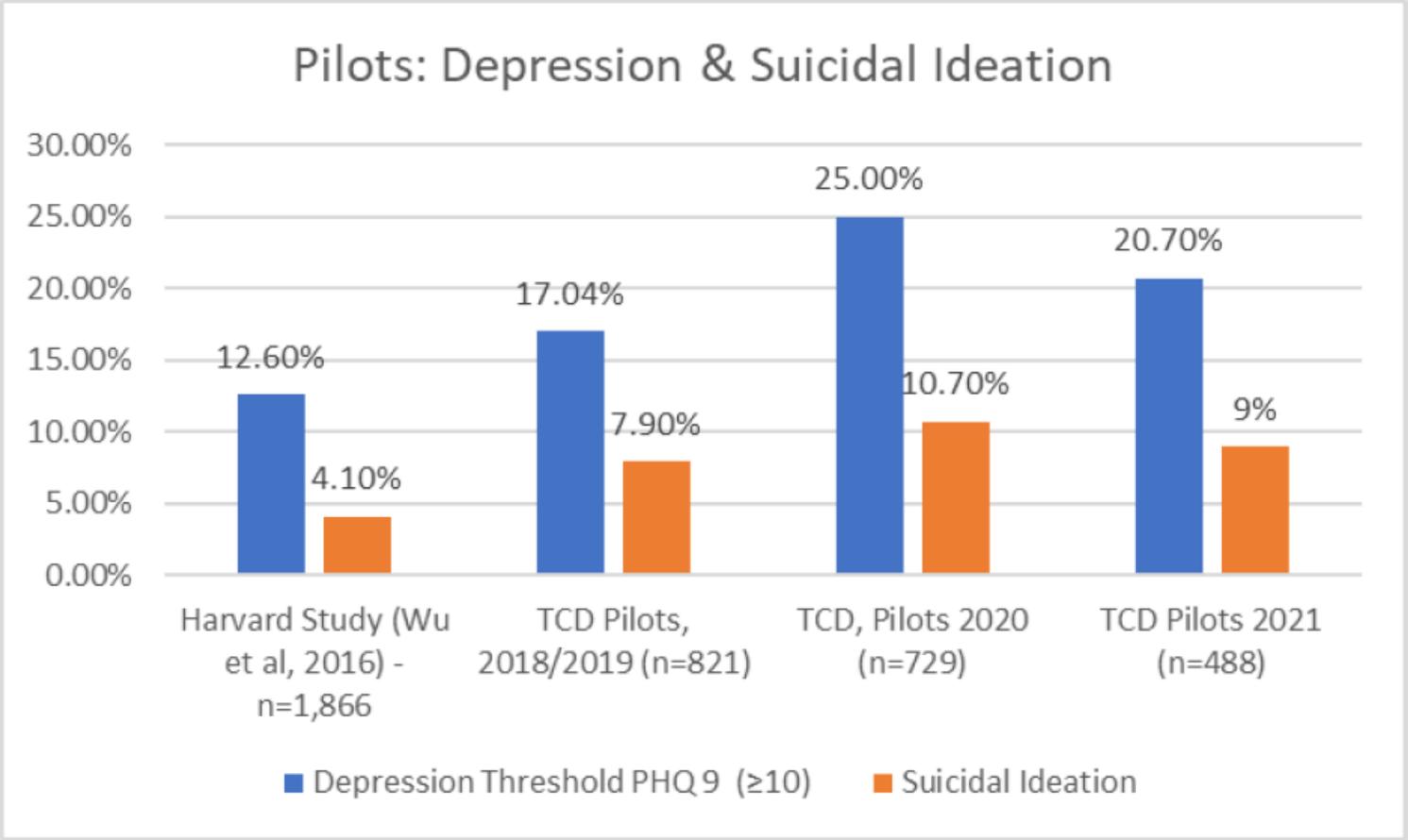
Compared with a global estimated prevalence of depression of 3.44% in 2017, our pooled prevalence of 25% appears to be 7 times higher, thus suggesting an important impact of the COVID-19 outbreak on people's mental health



Source: Prevalence of depression during the COVID-19 outbreak: A meta-analysis of community-based studies. Notivol, Garcia Olaya, Lasheras, Antón, Santabárbara (2021)

COVID 19 Pandemic Impact on Pilots

Pilots' mental health have been impacted by the COVID-19 Pandemic



Source: Cahill J., Cullen P. et al (2022) Impact of COVID on Aviation Worker Wellbeing. Trinity College Dublin, Ireland

Why Pilot's Don't Feel Comfortable Talking About Mental Health

Underreporting our weaknesses and over-reporting our strengths

Being labelled with a 'mental health problem' in aviation might have consequences:

- Stigma and discrimination (perceived and real);
- Grounding;
- Additional costs – examinations and treatment to obtain/ maintain medical certification;
- Loss of income;
- Fear of loss of employment



Source: ICAO Strengthening mental health in Civil Aviation. Jordaan (2016)

What lies ahead for us?

Mental Health will become an even more relevant subject and we need to be prepared to deal with it

“One in four people will experience mental illness in their lives, costing the global economy an estimated \$6 trillion by 2030”. (World Economic Forum 2021)

Vision is that all workplace leaders recognize and commit –with the right tools in place –to taking tangible and evidence-based action on mental health and wellbeing, enabling their workforces to thrive’.



Source: World Economic Forum, Mental Health in the Workplace Initiative, 2021).

Our Panelists



**LAURA ALMEIDA
ANTUNES**

- Laura Antunes has been a Clinical Psychologist for 27 years, being 21 years in the civil aviation field.
- Qualified in Continuing Safety of Aviation and Airworthiness by the “Instituto Tecnológico da Aeronáutica (ITA)”, she is also a CRM Facilitator by ANAC.
- Graduated as an Aeronautical Accident Investigator in the Human Factor Area by CENIPA
- Member of the Nucleus for Psychological Interventions in Emergencies and Disasters (NIPED), she is also qualified in Disaster Risk Reduction by the “International Development Center” of the International Labor Organization (UN), in Italy, and a specialist in Comprehensive Risk Management and Disasters.
- She is a professor at the Department of Psychology at “Escolas Universitárias Integradas Campos Salles” and co-author of the book “A Psicologia em Acidentes e Desastres Aéreos”.

Our Panelists



**VANESSA VIEIRA
DIAS KFOURI**

- Served as an officer in the Brazilian Air Force for 9 years.
- Her background is in the areas of Accident Prevention – Human Factor, Training for CRM, Inspection in Civil Aviation and Safety Management System.
- Extension course in Psychology applied to Aviation with a focus on post-accident psychological support.
- She got specializations internationally through the Human Factors in Flight Safety courses at the University of Southern California and the Critical Incident Management course at the International Critical Incident Stress Foundation.
- She is currently Technical Advisor in the Human Factors area at CENIPA, where she works as an investigator of aeronautical accidents and incidents.

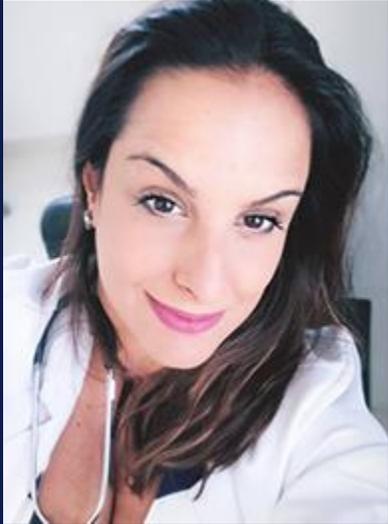
Our Panelists



SUSAN NORTHRUP

- Federal Air Surgeon for the U.S. Federal Aviation Administration. In this capacity, she leads the Office of Aerospace Medicine in Washington, D.C. She leads strategic management of the FAA's aviation medical programs, which oversee all pilots. She is responsible for the direction and management of all FAA medical programs.
- Dr. Northrup oversees the FAA's aeromedical education programs, the planning and conduct of aerospace medical and human factors research, and the investigation of aircraft accident medical factors.
- Retired U.S. Force colonel and Private Pilot.
- She has authored several scientific papers on accident investigation, the use of sleep aids by pilots, cabin air quality, and bioterrorism.
- While serving in the Air Force, she was the U.S. Head of Delegation to NATO's aeromedical working group.
- She is on the adjunct faculty for the USAF School of Aerospace Medicine and is a Fellow of the Aerospace Medicine Association.

Our Panelists



LIA DE MELO RIBEIRO

- Postgraduate doctor in gynecology and obstetrics, occupational medicine, aeronautical medicine, and business management and sustainability.
- Worked for 5 years as a clinical researcher at ISBEM (“Instituto Brasileiro de Bem Estar e Saúde da Mulher”).
- She is the author of the aerospace medicine chapter of the book “Checkup na Prática Médica”.
- Faculty at the postgraduate course in Aerospace Medicine at the “Estácio de Sá University”.
- Head of Aerospace Medical Health for LATAM Airlines Group.

Thank You

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